Remarks/Arguments:

Claims 1-13 and 27-40 stand rejected. Claims 14-26 have previously been cancelled.

Claims 1, 2, 6, 27, 32, and 40 are amended. Claims 4, 5, 30, and 31 are hereby cancelled. The remaining claims remain unchanged.

Responsive to Examiner's last decision mailed November 30, 2005, Applicants filed a Notice of Appeal on May 30, 2006 and an Appeal Brief on July 28, 2006. The Examiner's Answer was mailed on September 18, 2006. The Board's Decision on Appeal was dated November 13, 2007. In its decision, the Board affirmed the Examiner.

The Board's decision was, in general, that the Applicant's evidence of secondary consideration was not sufficient to overcome the rejection based on the Andrieu et al. patent in view of Holland et al. More specifically, the Board held that Holland et al.'s disclosure of a fabric having a high level of tear-resistance, abrasion-resistance, cut and stab-resistance, and chemical and cold-resistance would have prompted the person of ordinary skill in the art to use such a fabric for the protective sleeve of Andrieu et al., an application where a tear-resistant, abrasion-resistant, cut and stab-resistant, chemical and cold-resistant fabric is needed to protect cables and the like from damage by moving machinery parts and the like. The Board further held that the evidence submitted by Applicants to establish that the invention satisfies a long-felt, unsolved need, and commercial success fell short of doing so.

Applicant has now amended independent claims 1, 27, and 40. The independent claims now, in addition to the previous recitations, include the following new limitations:

A. The protective covers (sleeves) are recited as being for electrical cable, ropes, hydraulic lines, tethers, lanyards, and the like used in environments such as airports, docks, constructions sites, and the like in which the sleeves are subjected to abrasion, chemicals, moisture, weather extremes, and the like;

B. The fabric from which the sleeves are formed is now recited as made substantially of yarns formed primarily of long chain polyethylene fibers having a tensile modulus equal to or greater than a 150 grams/denier and a tenacity equal to or greater than 7 grams/denier;

C. The fabric from which the sleeve is constructed is now recited as further having a thermoplastic film selected from the group consisting of polyethylene film and ethyl vinyl acetate film bonded to at least the outer surface thereof; and

D. The protective cover is now claimed to be moisture-resistant, fuel-resistant, chemical-resistant, oil-resistant, abrasion-resistant, cut-resistant, tear-resistant, and further have the inherent advantage of being resistant to heat build-up as result of relative movement between the sleeve and the incased material.

Looking at paragraph B above, the independent claims now recite that the yarns which make up the fabric sleeve are formed primarily of long chain polyethylene fibers (commonly known as Spectra or Dyneema). Applicant's sleeves have been tested compared to sleeves formed of natural fibers such as cotton and sleeves formed of conventional synthetic fibers such as polyester and nylon (as suggested by Andrieu et al.). The result is that fibers formed of natural fibers (cotton, burlap, etc.), or conventional polymeric fibers such as nylon or polyester, create such friction when the encased hose or cable moves relative to the sleeve that heat build up causes either melting of the polymeric fibers or charring and deterioration of natural fibers. The long chain polyethylene fibers are the only material which have been tested which resists such a heat build up. This problem was not recognized by either Andrieu et al. or Holland et al., nor a solution suggested.

Secondly, as suggested in paragraph C above, the independent claims now include a thermoplastic film bonded to at least the outer surface thereof which further protects the encased hoses or cable from moisture (water, oil, or chemicals) and other weather hazards. As a result, the protective cover as claimed, is moisture-resistant, fuel-resistant, oil-resistant, abrasion-resistant, cut-resistant, tear-resistant, as well as having the inherent advantage of being resistant to heat build-up as a result of relative movement between the sleeve and the incased material. Again, this was not recognized or a solution suggested by Andrieu et al. or Holland et al.

The sleeves are considerably more expensive than conventional protective covers formed of such materials such as polyester, nylon, and natural fibers. However, customers have now been convinced that the extended life of such sleeves warrants the additional expense. In

addition to the cost of additional sleeves, it is expensive to remove old sleeves and replace them with new sleeves periodically.

The previous arguments in this application, characterized and understood by the Examiner, were that there was no teaching or suggestion in Andrieu et al. of any reason that would suggest a modification to utilize a yarn such as taught by Holland et al. The Applicant understands that, as a result of the *KSR* decision, the prior art does not have to specifically recognize a motivation to combine or modify prior art references. However, the argument now being advanced is quite different.

First of all, the present invention is not a situation in which persons of ordinary skill in the art were aware of a problem and had tried to solve it and failed. The sleeve of Andrieu et al. is designed for use primarily to bundle a plurality of cables, hoses, and/or wires, thus protecting them from automobile engines and other forms of moving machinery. (Col. 3, lines 51-58). As such, neither Andrieu et al. nor Holland et al. recognize the problems attendant to cables and hoses, in which the hose, cable, or protective cover is continually dragged across the concrete and wooden surfaces of airports, docks, construction sites and the like. Previous covers of polyester, nylon and nylon polymers simply do not hold up in these environments. *See* Holland Declaration of May 24, 2005. In addition to being extraordinarily abrasive, much more so than the environments recognized by Andrieu et al. and Holland et al., these surfaces are wet with water, oil, fuel, and chemicals. The air transportation industry, the shipping industry, and the construction industry have all lived with this situation for years without adequately addressing the problem.

Thus, neither Andrieu et al. nor Holland et al. recognize the problem attendant to cables and hoses being continually dragged across the surfaces of such environments as airports, docks, construction sites, and the like. To the contrary, the only environment recognized by Andrieu et al. is the interior of an automobile engine and such environments in which the wires, cables and hoses must be kept away from the moving engine or machinery parts and the ambient heat. Even though Holland et al. shows a front or end cover for a cargo container that is made from strong material to resist stabs and damage, it is not intended to be continually dragged across abrasive, wet surfaces. Thus, the Holland et al. reference does not recognize the other problems attendant

to the surfaces of airports, docks, and construction sites. Further, neither Andrieu et al., nor Holland et al. identify the source of the problem of the Andrieu et al. type protective covers, which is that the covers do not resist certain damaging elements such as moisture, fuel, chemicals, and heat buildup that occur in such environments as airports, docks, and construction sites.

Therefore, the argument to be made in the instant case is, first, that the prior art did not recognize the problem or the source of the problem, and therefore is within the line of cases that include the historic case of *Eibel Process Company v. Minnesota and Ontarior Paper Company*, 261 U.S. 45 (1923) and *In re Sponnable*, 405 Fed. 2nd 578, 160 USPQ 237 (CCPA 1960). These cases establish the rule that the discovery of the source of a problem or the problem itself may result in a patentable invention in spite of the fact that the solution might have been obvious once the source of the problem or the problem itself was discovered. That is apparently the situation here. The transportation industry had utilized cable and hose covers of cotton, polyester, and nylon for years, merely replacing the cables periodically, without realizing there was a problem or that the covers of natural fibers or conventional polymeric fibers were a problem.

Also, there would have been no motivation for the person of ordinary skill in the art, aware of the Andrieu et al. patent, to be looking for a fabric that would be resistant to the environment of airports, docks, and construction sites. As explained above, the Andrieu et al. sleeve is for the purpose of bundling a plurality of wires, cables, and/or hoses in an engine compartment or like environment wherein the bundled cables and hoses are to be kept relatively stationary in the vicinity of moving machinery. In the instant application, the sleeves generally cover a single hose or cable and protect it as it moves across abrasive surfaces.

Finally, and again, the prior art does not teach at least two aspects of the invention being claimed. First, neither Andrieu et al. nor Holland et al. teach the use of a thermoplastic film coating on a protective sleeve of the type claimed to protect from moisture which tends to deteriorate the encased material.

Secondly, neither Andrieu et al. nor Holland et al. recognize the problem of heat build-up as a result of the friction generated by an adjacent material rubbing against the material from which the sleeve is made. The limitation of the claims to long chain polyethylene fibers support this inherent advantage. Applicant knows of no other fibers with this characteristic. *See* Holland Declaration, supra, para. 18.

In view of the amendments to the claims and the arguments presented hereinabove, Applicant urges that he case is now in condition for allowance with Claims 1-3, 6-13, 27-29, and 32-40. Should any issue remain unresolved, Applicant's counsel would welcome the opportunity for a telephone interview to expedite allowance.

Respectfully submitted,

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